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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,650	02/01/2001	Kenji Fukaya	P 0276746 U3-0041-TS	8329

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EXAMINER

TUNG, TA HSUNG

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 07/15/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/774650

Applicant(s)

FUKAYA

B-TAL

Examiner

T. TUNG

Group Art Unit

1753

Paper No. 12

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☒ Responsive to communication(s) filed on 5/30/03
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 2, 4-7 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 2, 4-7 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☒ The proposed drawing correction, filed on 5/30/03 is ☒ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
  - ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

Office Action Summary

Art Unit: 1102

Claims 2, 4-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2, line 4, “outer” apparently should be --inner--, since the reference electrode is on the inner surface of the solid electrolytic element.

Claim 2, last two lines, “said heater is brought into contact with the inside surface of said reference gas chamber” is considered to be misdescriptive. The reference gas chamber does not have an inside surface or an outside surface. The heater is brought into contact with the inside surface of the solid electrolytic element. This objection applies to all the other claims as well. Any amendment to the claims to address this issue should be made to the specification also.

Claim 4 is still confusing. It is unclear if the claim calls for the heat generation peak position to be at a proximal end where a high resistive portion is provided. If so, that would appear to contradict the purpose of the invention. If this claim is based upon figure 12, where the heat generation peak position is at the distal end, but a high resistive portion 315 is located at a proximal end, applicant should confirm in his response to this Office action that that is his intent.

Claim 6, last two lines, recite “distal side”, while other claims recite “distal end side” (e.g. claim 7 last two lines) or “proximal end side” (e.g. claim 7, last line). Does applicant intend to differentiate “side” from “end side”? If not, one consistent expression should be used throughout.

Claims 2, 5, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ep 899562 in view of Kojima et al 5,895,591.

Art Unit: 1102

Applicant argues that neither Ep nor Kojima teaches the arrangement wherein the electric resistive value of the heat generation section is maximized in the vicinity of the contact portion.

This argument is totally non-persuasive. Ep suggests the contact portion should be at a dense heat generation portion (col. 57, line 46). This is a teaching that the maximum heat generation should be at the contact portion and can be achieved by having a dense heater pattern. Kojima discloses the adjustment of heat generation by providing a heater pattern that varies in width (which of course varies the resistance value of the pattern), or by varying the density of the heater pattern. See the figures; col. 6, line 11 to col. 7, line 13 and col. 8, line 45 to col. 9, line 13. It would have been clearly obvious for Ep to generate the maximum heat at the contact portion by providing at the contact portion a heater pattern with a small width that would generate maximum resistance and therefore maximum heating, since Kojima teaches this technique to be an alternative to varying heater pattern density. The substitution of art-recognized equivalents is within the skill of the art.

In regard to claim 5, the characteristics recited in the last paragraph is seen to be inherent of an Ep heater modified by a heater pattern that has its maximum resistance at the contact portion, as suggested by Kojima. There is no evidence that applicant's heater is of any special design beyond the heater pattern having a small width at the contact portion to achieve maximum resistance in order to satisfy the properties recited in the last paragraph of this claim. If there is any such special design, it does not appear to be adequately disclosed.

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Claims 2, 5, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 5-126789 in view of Ep '562 and Kojima et al.

The arguments here are the same as in the previous rejection and are similarly non-persuasive.

An ordered translation of the Japan document has yet to arrive. Presumably, it would be available for the next Office action.

The subject matter of claims 4 and 7 setting forth a high resistive portion at the proximal end of the heater is not disclosed or fairly suggested by the prior art of record. These claims would be allowable if the 35 USC 112 rejections were overcome.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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The examiner can be reached at 703-308-3329. His supervisor Nam Nguyen can be reached at 703-308-3322. Any general inquiry should be directed to the receptionist at 703-308-0661. A fax number for TC 1700 is 703-872-9311.



Ta Tung

Primary Examiner

Art Unit 1753